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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,917	03/22/2004	John G. Bartkowiak	028-0124-1	9692

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/805,917

Applicant(s)

BARTKOWIAK, JOHN G.

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-10 are allowable over the prior art of record.
2. The following is a statement of reasons for the indication of allowable subject matter:  
  
As per the independent claim, claim 1, the recited limitations pertaining to performing multiple energy value calculations on a plurality of subsequent frames, and repeating these calculations/comparison until there is a comparison of the energy of the past two frames, is not explicitly taught by the prior art of record.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 11-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Benyassine et al (5774849) in view of Lee et al (4689760).

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As per claims 11,22,31, Benyassine et al (5774849) teaches a frame based time input signal having at least one tone (incoming speech signal, Col. 2 lines 54-67) comprising energy signal level indicative of the input signal (as calculating frame energy -- Fig. 2, subblock 205); a signal filter generating a noise indicator (as calculating background noise thresholds --Fig. 2, subblock 245, col. 3 lines 44-51); a dynamic threshold determiner generating an energy threshold for each frame portion based on a value of the energy signal during a previous frame portion (as Fig. 2 subblocks 230,235,240, and col. 3 lines 34-50); a signal processor receiving the energy threshold, the noise indicator, and the energy signal, and determining the aforementioned parameters (as VAD process, col. 3 line 7 - col. 7 line 15).

Benyassine et al (5774849) does not explicitly teach multiple tones/frequency detection, however, Lee et al teaches spectral analysis for such detection (abstract). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Benyassine et al (5774849) with multiple tones/frequency detection as taught in Lee et al because it would advantageously allow for touch tone control and recognition in a voice messaging system (Lee et al, col. 3 lines 45-50).

As per claims 12,23,25-28, Benyassine et al (5774849) teaches updating average frame energies from previous frames (Fig. 2 subblocks 205,210, and 215);

As per claims 13, Benyassine et al (5774849) teaches time domain based calculation (col. 4 lines 60-65), and based on frequency coefficients (LSFs -- col. 3, line 53-66, wherein LSFs are created by the Fourier transform)

As per claims 14-21,24,29,30 Benyassine et al (5774849) teaches energy based noise threshold decisions (col. 7 lines 5-30); separating into low band energies (col. 4 lines 13-22; col. 5 lines 33-39); averaging (col. 4 lines 45-52); interframe comparison within a range(col. 3 lines 39-50); and normalization (as normalizing with the alpha parameter (col. 4 lines 40-45).

***Response to Arguments***

3. Applicant's arguments received 6/2/05 have been fully considered but they are not persuasive. As per applicant's comments regarding the stated reasons for allowance, examiner notes that the language used tracks the claim limitations of the independent claim. As per applicant's arguments on page 10 of the response pertaining to the energy calculation, examiner argues that Benyassine teaches using previous frame energies, thereby inherently teaching a "part of a value" as claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). With respect to applicants arguments that Benyassine and Lee perform different types of energy calculations (starting on page 11 of the response and concluding on the top part of page 12 of the response), examiner notes that the incorporation of Lee is the multiple frequency detection and therefore the section of Lee performing this calculation is incorporated as a whole into the Benyassine reference. In the combination of Benyassine in view of Lee, Benyassine takes us to the point of the concept of using spectral energy information and Lee then takes us one step further with the detailed calculation using energy information (also, see the motivation to combine provided above). Applicant's arguments on the remaining page of page 12 to page 17 are similar in scope and

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content to the arguments presented on pages 10-12 of the response; and therefore are rebutted similarly as presented above in the "Response to Arguments" section.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872 9314,

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(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young, can be reached at (571)272-7582. The facsimile phone number for this group is (571)272-7629.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571)272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno  
8/20/05



W. R. YOUNG  
PRIMARY EXAMINER